

University of Bahrain
College of Information Technology
Department of Computer Science
ITCS 473 – Internet Software Development
1st Semester 2015-2016
Midterm Test
Form B

Date: 30th November 2015

Time: 11:00-12:30

Student ID		
Student Name		
Section (Circle Your Section)	ITCS473/1 ITCS373/1	<u>ITCS473/2</u> ITCS373/2

NOTES:

- **THERE ARE 7 PAGES IN THIS TEST**
- **BLACK/BLUE PEN IS PREFERRED**
- **WRITE ONLY ONE ANSWER FOR EACH QUESTION**

Question	Marks	
1	14	14
2	13	13
3	23	22.5
Total	50	49.5

Excellent

Question One:

[10 Marks]

Part 1: Multiple Choice Questions

1. The style sheet that enables you to change the appearance and layout of all the pages in your Web at once is called:
☒ a. External Style Sheet
☐ b. Internal Style Sheet
☐ c. Inline Style Sheet
☐ d. All of the above
2. The CSS3 @keyframes is used for:
☒ a. Creating 3D transformation
☐ b. Creating animation sequence by changing the styles
☐ c. Both (a) and (b)
☐ d. None of the above
3. Which of the following is a valid PHP statement to create new cookie called username with a value ABC that expires after 2 weeks:
☐ a. `setcookie("username", "ABC", 14 * 24 * 60 * 60 * 1000 + time());`
☐ b. `$_COOKIE['username', 14 * 24 * 60 * 60 + time()] = "ABC";`
☐ c. `setcookie("username", "ABC", 14 * 24 * 60 * 60);`
☒ d. `setcookie("username", "ABC", 14 * 24 * 60 * 60 + time());`
4. The main protocol used for sending Emails is :
☒ a. SMTP
☐ b. POP3
☐ c. MIME
☐ d. All of the above
5. Which of the following HTML 5 elements can be used to provide user authentication with the Server:
☒ a. <keygen> element
☐ b. Semantic Elements
☐ c. <canvas> element
☐ d. None of the above
6. The Internet network is controlled and operated under the following protocol:
☐ a. WAN
☐ b. Internetworks
☒ c. TCP/IP
☐ d. HTTP
7. A user can't locate WebPages URLs without the use of:
☒ a. DNS
☐ b. MIME
☐ c. HTTP
☐ d. All of the above

8. A URL stands for:
- Universal Repository Locator
 - ☒ Uniform Resource Locator
 - Unified Resource Language
 - None of the above
9. HTML language is considered:
- Web Programming Language
 - ☒ Text Presentation Language
 - Data Modeling Language
 - None of the above
10. The <canvas> element in HTML5 is used to:
- define scalable graphics in XML format
 - create drag-able elements
 - ☒ draw graphics on the fly using JavaScript
 - Both (a) and (c)

Part 2: Review the following HTTP Request: [1+1.5+1.5 = 4 Marks]

```
[XXXX] /mycart.php?en=us&q=3&n=buy HTTP/1.1
Host: www.test.com
User-Agent: Mozilla/5.0 (Windows; U; Windows NT 6.1; en-US; rv:1.9.1.5)
Gecko/20091102 Firefox/3.5.5 (.NET CLR 3.5.30729)
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,*/*;q=0.8
Accept-Language: en-us,en;q=0.5
Accept-Encoding: gzip,deflate
Accept-Charset: ISO-8859-1,utf-8;q=0.7,*;q=0.7
Keep-Alive: 300
Connection: keep-alive
Referer: http://www.itcs473.com/guest.aspx
Content-Type: application/x-www-form-urlencoded
```

Answer the following questions:

- a) What is the HTTP request method?

~~Get~~

- b) What is the WebPage Program Full URL that will receive the above HTTP request?

www.test.com/mycart.php?en=us&q=3&n=buy

X (~~http://www.itcs473.com/guest.aspx~~)

- c) The user request is originated from the URL called?

http://www.itcs473.com/guest.aspx

Question 3: HTML/CSS

Q2-A) Write the necessary HTML code to design the following table borders.
The border size should be 3 pixels. [6 Marks]

row no ↓

①	①	②	③ ← cols
②			
③			
④			

```
<html>
<body>
  <table border='3' width='300' height='200'>
    <tr>
      <td width='100'></td><td width='100'></td>
      <td width='100'></td>
    </tr>
    <tr>
      <td colspan='2' rowspan='2'></td>
      <td colspan='2'></td>
    </tr>
    <tr>
      <td colspan='2'></td>
    </tr>
    <tr>
      <td colspan='2' rowspan='2'></td>
      <td colspan='2'></td>
    </tr>
    <tr>
      <td colspan='2'></td>
    </tr>
  </table> </html> </body>
```

6

Q2-B) Create external style sheet that defines the following formatting:

[5 Marks]

- All Paragraphs (P) and headers (h3-h5) text must be capitalized.
- Change the hyperlinks colors by using Pink for unvisited and Green for visited
- Set the font for all P tags whose id is equal to 'web' to have Arial type, 18pt font size and background color of red.

```
h4, p, h3, h5 { text-transform: capitalize; }
a:link { color: pink; }
a:visited { color: green; }
p#web { font-family: Arial; font-size: 18pt; background-color: red; }
```

5

Q2-C) assuming that the external style sheet you created in Q2-B is called test.css. [1+1 = 2 Marks]

- a) Write the HTML instruction to link with the external style sheet.

<link rel='stylesheet' type='text/css' href='test.css'/>

- b) Write one HTML example showing how you will link the CSS instruction in Q2-B Part (c) to HTML element.

<P id='Web'> This paragraph have arial font, size: 18 pt, and background color: red </P>

Question 3:

Using PHP scripts, answer the following questions:

1. Write PHP statements to redirect the user to ABC.php if and only if his IP address starts with 192.122 or 211.132. Otherwise display a message you are not authorized to view this page. [6 Marks]

```
<?php
$arr = explode ("\\.", $_SERVER['REMOTE_ADDR']);
if (($arr[0] == '192' && $arr[1] == '122') || ($arr[0] == '211' && $arr[1] == '132'))
    header ('location: ABC.php');
else
    {echo "You are not authorized to view this page";
    die();}
?>
```

2. An associative array is stored in a session called houses. Each key in the array represents the houses' area name and its associative value contains a numeric array storing houses' prices of that particular area. Display area name, no. of houses and average house price for each area in HTML table as shown below:

Area	No. of Houses	Average House Price
East Riffa	123	189000.55
...

Appropriate message should be displayed in case the session doesn't exist.

[8 Marks]

<table border='1'>

<tr>

<th>Area</th><th>No. of Houses</th><th>Average House Price</th>

</tr>

```
<?php
if(!isset($_SESSION['houses']))
    echo "No session";
else
{
    $arr = $_SESSION['houses'];
    (echo "<table border='1'><tr><th>Area</th><th>No. of Houses</th><th>Average Houses Price</th></tr>" ;
    foreach($arr as $key => $val) {
        $sum = 0; $count = count($val);
        echo "<tr><td>$key</td><td>$count</td>";
        for($i=0; $i<$count; $i++)
            $sum += $val[$i];
        $avg = $sum/$count;
        echo "<td>$avg</td></tr>";
    }
    (echo "</table>" );
}
?>
```

X in Question already

3. Examine the following HTML form for ordering a Volcano Burger as a sandwich or as a meal.

```
<form method='post' action='bill.php'>
Volcano Burger - Price: BD 1.800
<input type='hidden' name='price' value='1.800' /><br />
Quantity: <input name='qty' value='1' /><br />
Sandwich Extras: <br />
<input type='checkbox' name='extras[]' value='0.150' /> Cheese <br />
<input type='checkbox' name='extras[]' value='0.300' /> Jalapeno <br />
<input type='checkbox' name='extras[]' value='0.200' /> Wicked Sauce <br />
Make it Meal? <br />
<input type='radio' name='mtype' value='0.000' checked /> No Thanks <br />
<input type='radio' name='mtype' value='0.600' /> Yes Please <br />
<input type='submit' value='Calculate' />
</form>
```

Write a PHP program that receive the user order and do the following:

- Display the Unit Price and Total Price as follows:
$$\text{Unit Price} = \text{Sandwich Price} + \text{Sandwich Extras} + \text{Meal Charge (if Selected)}$$
$$\text{Total Price} = \text{Unit Price} \times \text{Quantity}$$
- Repeat the sandwich picture (sandwich.jpg) or the meal picture (meal.jpg) according to the selected quantity.

[9 Marks]

Volcano Burger - Price: BD 1.800

Quantity

Sandwich Extras:

☒ Cheese

☐ Jalapeno

☒ Wicked Sauce

Make it Meal?

☐ No Thanks

☐ Yes Please

When extracting the Post we get with those values :

\$price = 1.8 ← the hidden element

\$qty = 2

\$extras = (0.150, 0.200)

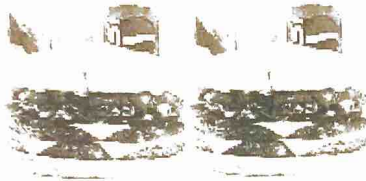
\$mtype = 0.000

Sample Output for Quantity of 2 meals, Jalapeno and Cheese

Extras

1 Unit Price = BD 2.85

Total Price = BD 5.7



8.5

```
<?php
extract($_POST); // $Price $qty $extras $mytype
$sumextras = 0;
for ($i = 0; $i < count($extras); $i++)
    $sumextras += $extras[$i];

$unitPrice = $Price + $sumextras + $mytype;
$totalPrice = $unitPrice * $qty;

echo "1 Unit Price = BD " . $unitPrice . "<br />";
echo "Total Price = BD " . $totalPrice . "<br />";

if ($mytype == '0.00')
    $picture = 'sandwich.jpg';
else
    $picture = 'meal.jpg';

for ($i = 0; $i < $qty; $i++)
    echo "<img src='$picture' width='100' height='100'>";

?>
```

if
isset
0.5